

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001858020014-2

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CIA-RDP86-00513R001858020014-2"

URBANSKIY T.

POLAND/Organic Chemistry, Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimiya No 6, 1957, 19076.

Author : Urbanskiy T., Shchitzinskiy B.

Inet : ~~XXXXXXXXXXXX~~

Title : Acetylation of bis-(2-oxymethyl-2-nitro)butylamine.

Orig Pub: Byul. Pol'skoiy AN. 1956, Otd. 3,4, No 4, 221-222

Abstract: Through acetylation by means of $(\text{CH}_3\text{CO})_2\text{ONHCH}_2\text{C}(\text{NO}_2)(\text{CH}_2\text{OH})\text{CH}_2\text{CH}_3$ 2 (I) obtained previously at the hydrolysis of 5-ethyl-5-nitro-3-(2-oxymethyl-2-nitro-butyl)-tetrahydro-1,3-oxazine (II) (J. Amer. Chem. Soc., 1947, 69,924), a triacetyl derivative of I, (III) is obtained; at the hydrolysis of III in an aqueous sol. of NaOH in the presence of acetone at 0° according to the method described before (J. Amer. Chem. Soc., 1936, 58, 490), all the acetyl groups are saponified. On the aqueous sol. I HCl act CH_3COONa (IV) (heating

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Abs Jour: Ref Zhur-ikhimiya No 6, 1957, 19076

several minutes), and $(\text{CH}_3\text{CO})_2\text{O}$ in an aqueous medium in the presence of IV (with the purpose to obtain N-acetyl derivative of I); II is obtained; it indicates the easy formation of tetrahydro-1,3-oxazine ring. 0.011 mole I HCl (m.p. 182-184°) is mixed with 0.076 mole $(\text{CH}_3\text{CO})_2\text{O}$ and 15cc pyridine at $\sim 20^\circ$. After 22 hours ($\sim 20^\circ$) 20 cc of water is added; yield III 80%, m.p. 68-69° (from alcohol).

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URBANSKIY, T.

POLAND/Organic Chemistry. Synthetic Organic
Chemistry.

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Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26789.

Author : Urbanskiy, T.; Skovronskaya-Serafin, B.

Inst : Academy of Sciences of Poland.

Title : Reactions of Aromatic Amines with Cyano-
guanidine. Reactions of Phenylid Amidino-Car-
bamides and Their Derivatives with 2-Amino-
pyridine.

Orig Pub: Byul. Pol'skoy AN, 1956, Otd. 3,4, No. 6,
351 - 352.

Abstract: With a view to continue earlier works (see RZh-
Khim, 1954, 25227; 1956, 800), the reactions of
 $n\text{-RC}_6\text{H}_4\text{NHCONHC(=NH)NH}_2\cdot\text{HX}$ (I), where R = H (Ia)
and R = NO_2 (Ib), with 2-aminopyridine (II)
were studied. 1 g of Ib (X = Cl) is mixed with

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Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26789.

2 g of melted II and heated (1 to 2 min.) until the solution becomes transparent, N-(n-nitro-phenyl)-N^o-(pyridine-2)-urea (III), yield 66%, softening point 242° (from C₄H₉OH), sublimated at 247°, and pycrate, melting point 197 - 199° (dissociates, from alcohol) are separated by cooling. n-Nitroaniline (IV) and di-N,N'-(pyridine-2)-urea (V), melting point 172 - 174°, were produced by heating III with II further. Ia (X=NO₂) with II produces guanidine and N-phenyl-N^o-(pyridyl-2)-urea (VI) when heated, yield 50%; V is not produced by prolonged heating. About 53% of IV and a little amount of V were obtained by heating VI.HCl 5 minutes with II.

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URBANSKI, J

URBANSKI, T.

/ hydrogen bond formation in some nitroalcohols II /

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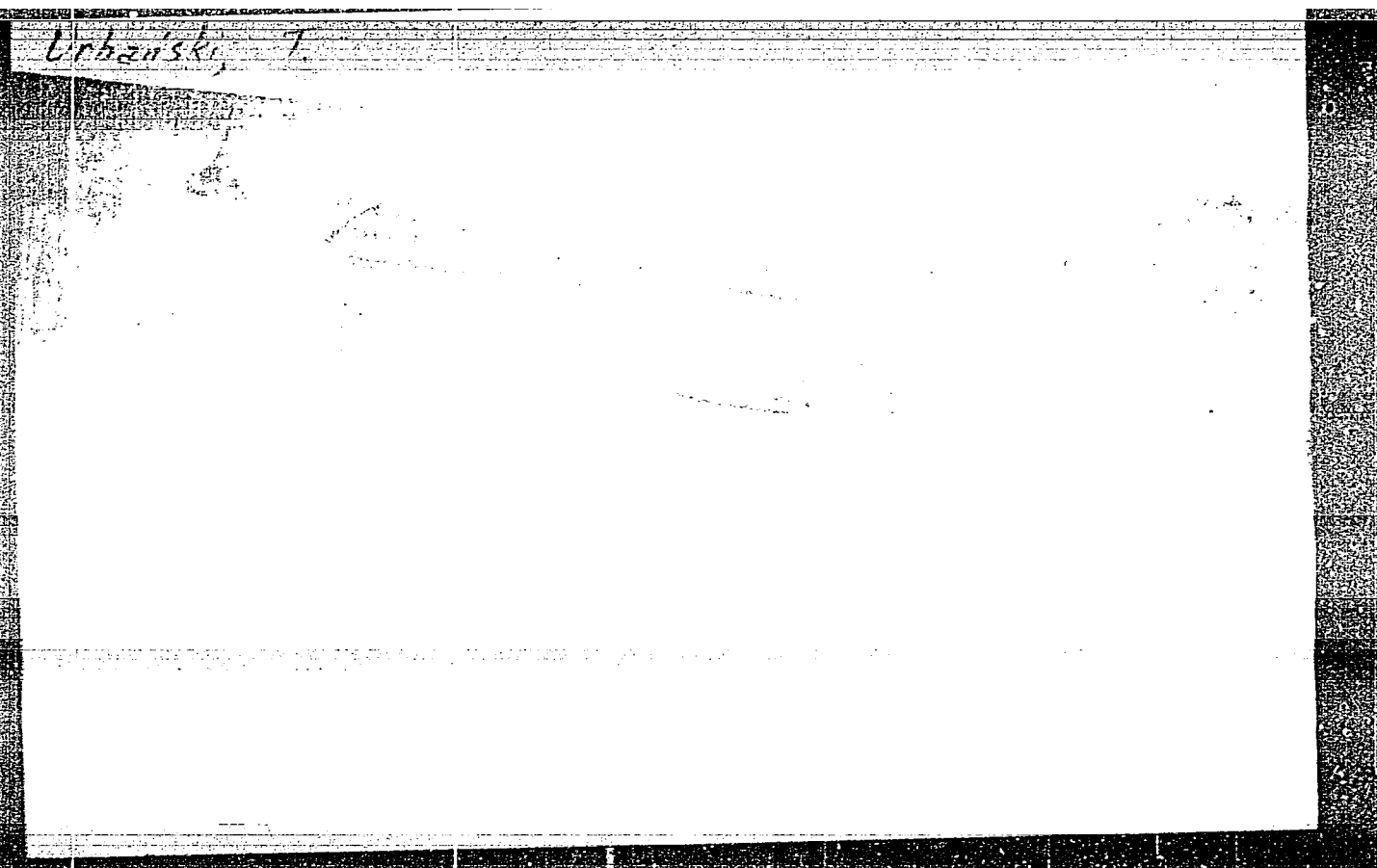
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URBANSKI T

VERANSKI, T.

was also tested for the presence of 2,4-dinitrophenol (resorcinol), 2,6-dinitrophenol (resorcinol), and p-chloro-m-cresol, the results are tabulated

PM



URBANSKI, T.

URBANSKI, T.

2d Congress of Hungarian Chemists in Budapest.

p. 164 (Wiadomosci Chemiczne) Vol. 10, no. 3, Mar. 1956, Wroclaw, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (KEAI) LC, VOL. 7, NO. 1, JAN. 1958

URBANSKI, T.

11th International Congress of Pure and Applied Chemistry and 18th Conference of the
International Union of Pure and Applied Chemistry. Zurich, 1955.

P. 24 (Przegląd Chemiczny, Vol. 12, no. 1, Jan. 1956, Warszawa, Poland)

Monthly Index of East European Accessions (FFAI) LC. Vol. 7, no. 2,
February 1958

URBANSKI, T.

URBANSKI, T. Symposium on macromolecular chemistry. p. 136

Vol. 12, no. 3, Mar. 1956
PRZEMYSŁ CHEMICZNY
TECHNOLOGY
Warszawa, Poland

So: East European Accession Vol. 6, no. 2, 1957

URBANSKI, T.

URBANSKI, T. Progress in the chemistry and technology of polymers. p. 488.

Vol. 12, no. 9, Sept. 1956

PRZEMYSŁ CHEMICZNY
PHILOSOPHY & RELIGION
Warszawa, Poland

SO: East European Accession, Vol. 6, March 1957

~~URBANSKI, Tadeusz~~

URBANSKI, T.

Tadeusz Urbanski, and Barbara Gac-Chylinska: " On Derivatives of 1,3-Oxazine. XIII. Preparation and Properties of 3-Benzyl-4,4,6-Trimethyltetrahydro-1,3-Oxazine," Roczniki Chemii, Vol 30, No 1, Warsaw, 1956. Published from the Chair of Organic Technology, II, Warsaw Polytechnic, and the Workshop for Drug Synthesis of the Tuberculosis Institute, Warsaw, 21 Jun 55.

_____, _____
Zygmunt Eckstein, Wiesław Sobotka and Tadeusz Urbanski: "On Aliphatic Nitrocompounds, IX. Reactions of Nitro-Olefins. II. On Derivatives of 5-Nitro-5-(1-cyclohexenyl)-Tetrahydro-1,3-Oxazine," Roczniki Chemii, Vol 30, No 1, Warsaw, 1957. Published from the Research Laboratory of Organic Synthesis of the Polish Academy of Sciences in Warsaw, and the Chair of Organic Technology II, Warsaw Polytechnic, 3 Dec 57.

removing IV hydrochloride (0.2 g) in 98% EtOH gives
series 2 x unchanged IV. If unchanged IV is

POLAND / Organic Chemistry, Synthetic Organic Chemistry

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Pub Jour : Ref Zhur - Khim., No 10, 1958, No 32371

Author : Czeslaw Belzocki, Tadousz Urbanski

Inst : -

Title : Thiosomicarbazones of Keto Acids. I. α , β -Thiosomicarbazones of Acetoacetic ester and Its Conversions.

Orig Pub : Roczn. chem., 1956, 30, No 3, 781-787

Abstract : The reaction of $\text{CH}_3\text{COC}(\text{=NOH})\text{COOC}_2\text{H}_5$ (I) with $\text{NH}_2\text{NHCSNH}_2$ (II) was studied. 0.3 mole of NaNO_2 in 30 mlit of water is added to 0.3 mole of $\text{CH}_3\text{COCH}_2\text{COOC}_2\text{H}_5$ in 60 mlit of glacial CH_3COOH at a temperature below 10° in 3 hours' time stirring it continuously, the mixture is diluted with 300 mlit of water and extracted with ester; I is obtained, the yield of the raw I is 15 g, it explodes if distilled in vacuo. Thiosomicarbazono of I (IV) is synthesized similarly of $\text{CH}_3\text{C}(\text{=NNHCSNH}_2)\text{-CH}_2\text{COOC}_2\text{H}_5$ (III) (obtained at a yield of 83%, melting point

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POLAND / Organic Chemistry. Synthotic Organic Chemistry.

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Abs J_{ur} : Ref Zhur - Khim., No 10, 1958, No 32371

94 to 95°), yield 30%, melting point 161 to 162° (dissociates, from alcohol and water); IV is obtained also of I and II (0.1 mole of each) in 100 mlit of hot water at a yield of 95%. III reacting with NH₃ cyclizes into CH₃C=NN(CSNH₂)COCH₂ (V), yield 68%. 0.1 mole of IV is dissolved in concentrated NH₄OH at 40 to 50°, cooled to 0°, the precipitate is dissolved in 200 mlit of water at about 40°, acidified with dilute HCl, and CH₃C=NN(CSNH₂)COCH=NOH (VI) is obtained, yield 59%, melting point 180 to 182° (dissociates, from alcohol); VI is obtained also at the nitrosation of V with a yield of 30% (see synthesis of I). 0.1 mole of I is added to the solution of 0.2 mole of II in 40 mlit of 25%-ual H₂SO₄ + 250 mlit of water, the mixture is heated 1 hour (bath temperature = 100°), cooled, filtered, and the precipitate is extracted with hot water and, after that, with alcohol,

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POLAND / Organic Chemistry. Synthetic Organic Chemistry.

Publ Jour : Ref Zhur - Khim., No 10, 1958, No 32371

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$\text{CH}_3\text{C}=\text{NN}(\text{CSNH}_2)\text{CO}\text{C}=\text{NNHCSNH}_2$ (VII) is obtained, yield 28%, melting point 208° (dissociates, from $\text{CH}_3\text{CONHCH}_3$ -water); VII is obtained in the similar way at the hydrolysis and cyclization of IV or at the hydrolysis of VI in the presence of equimolar amounts of II; yield 22 and 49%.

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URBAN'SKI, T.

POLAND/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11271.

Author : Urbanski, T., Falecki, J., and Halski, L.

Inst :

Title : Synthesis of the Disulfide of Bis-(2,2'-carbomethoxy-phenyl) by the Oxidation of Methyl Ester of 2-Mercaptobenzoic Acid in the Presence of Hydroxyl-amine.

Orig Pub: Roczniki Chem, 30, No 3, 969-972 (1956) (in Polish with English summary)

Abstract: Research on the synthesis of 2-mercaptobenzene hydroximic acid has shown that the methyl ester of 2-mercaptobenzoic acid (I) does not react with hydroxylamine (II) in alcohol and water and on reaction with anhydrous II forms the disulfide of bis-(2,2'-carbomethoxyphenyl) (III). Preparation: 1.10 gms II and 1.21 gms I are allowed to stand

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POLAND/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11271.

for 48 hrs for 28-34°, the solution is filtered, and washed with alcohol. The yield of III is 32.3%, mp 131-134°.

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... in the presence of pyridine (I) by 3
of a tri-Ac deriv., mp. 68-69° (yield about 80%).
It is eq. NaOAc soln. gave no N-Ac deriv. of I. I.HCl with
8-nitro-3-(3-hydroxymethyl-2-nitrobutyl)tetrahydro-1,3-
oxazine (III). The same result was obtained from
NaOAc and I without II. The tri-Ac deriv. of I
transformation.

URBANSKAYA, Z.N., starshiy nauchnyy sotrudnik

Modifications in the manufacture of protective plates from styrene-acryl. Stomatologiya 39 no.1:71 Ja-F '60. (MIRA 14:11)

1. Iz kafedry chelyustno-litsevoy khirurgii (zav. - prof. N.M. Mikhel'son) Tsentral'nogo instituta usovershenstvovaniya vrachev (dir. M.D.Kovrigina) i Tsentral'nogo instituta travmatologii i ortopedii (dir. - prof. N.N.Prirov).
(DENTAL PROSTHESIS)

VINOGRADOVA, T.F. Subjects: URBANSKAYA, V.N. Radiated about

Treatment of traumatic injuries to the teeth in children. In: *...*
TJBU 64931-34 '63. (MIRA 1963)

URBANSKI,

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POLAND / Organic Chemistry. Synthetic Organic Chemistry

Abs Jour : Ref. Zhur - Khimiya, No 3, 1958, 7880

Author : I. Eckstein, Urbanski, Wojnowska. II. Eckstein, Krackiewicz,
Urbanski, Wojnowska

Inst : Not given

Title : Endo- and Exo-isomers of Nitroolefins (1-cyclohexenyl- and
cyclohexylidenenitromethane).

Orig Pub : Bull. Acad. polon. sci., 1957, Cl, 3,5, No. 2, 219-222, No 3,
315-322.

Abstract : I. Cyclohexene-1-yl nitromethane (II), n_D^{20} 1.4856-1.4875,
 d_{20}^{20} 1.0733-1.0788 is formed when 1-nitromethyl-1-oxycyclohexane
(I) is dehydrated by use of $POCl_3$, $SOCl_2$, or pyridine. II is
also produced in the condensation of nitromethane with
cyclohexanone in the presence of basic catalysts. Heating I

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URBANSKI, ~~1958-1959~~

POLAND / Organic Chemistry. Synthetic Organic Chemistry

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Abs Jour : Ref. Zhur - Khimiya, No 3, 1958, 7880

Author : I. Eckstein, Urbanski, Wojnowska. II. Eckstein, Kraczkiewicz,
Urbanski, Wojnowska

Inst : Not given

Title : Endo- and Exo-isomers of Nitroolefins (1-cyclohexenyl- and
cyclohexylidenenitromethane).

Orig Pub : Bull. Acad. polon. sci., 1957, Cl, 3,5, No. 2, 219-222, No 3,
315-322.

Abstract : I. Cyclohexene-1-yl nitromethane (II), n_D^{20} 1.4856-1.4875,
 d_4^{20} 1.0733-1.0788 is formed when 1-nitromethyl-1-oxycyclohexane
(I) is dehydrated by use of $POCl_3$, $SOCl_2$ or pyridine. II is
also produced in the condensation of nitromethane with
cyclohexanone in the presence of basic catalysts. Heating I

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POLAND / Organic Chemistry. Synthetic Organic Chemistry

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-Abs Jour : Ref. Zhur. Khimiya, No 3, 1958, 7880

Abstract : acetate does not produce II, but rather an isomeric nitroolefin which is either cyclohexyldenenitromethane (III) or a mixture of II and III. It is possible that in the presence of bases III easily isomerizes into II; this explains the formation of the selfsame 2-nitro-2-(cyclohexene-1-yl)-propanediol-1,3 (IV) when II and III condense with CH_2O in the presence of $(\text{C}_2\text{H}_5)_3\text{N}$ in dioxane. IV reacts with $\text{C}_6\text{H}_5\text{CHO}$ to yield 2-phenyl-5-nitro-5-(cyclohexene-1-yl)-dioxane-1,3. The interaction of III with n-chlorobenzaldehyde gives rise to 2-nitro-2-(cyclohexene-1-yl)-1-n-chlorophenylethylene. Unlike II which is easily brominated to 1,2-dibromo-1-nitromethylcyclohexane, III does not react with Br_2 . II. The infra-red spectra of II and III were studied and it was shown that I acetate (see communication I) gives rise to a mixture of 10% of II and 90% of III.

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URBANSKI, Boleslaw

Electric motors in sound-recording and reproducing equipment. (To be contd.) p. 1

BIULETYN TECHNICZNY. Warszawa, Poland. Vol. 2, no. 1/2, January/June 1957

Monthly list of East European Accession (EEAI) LC, Vol. 8, no. 7, July 1959

Uncl.

URBANSKI, Bc/leslaw

Problems connected with magnetic recording on low-speed tapes. p. 12.

BIULETYN TECHNICZNY. Warszawa, Poland. Vol. 2, no. $\frac{1}{2}$, January/June 1957

Monthly list of East European Accession (EEAI) LC, Vol. 8, no. $\frac{1}{2}$, July 1959

Uncl.

URBANSKI, Bolesław

The magnetic circuit of the playback and recording head for
high-frequency signals. Archiw elektrotech 10 no.2:535-560
'61.

Urbanski, Tadeusz; Zygmunt, Bolesław

large bulk ratios of Br and its pos. character. VI and 6-chloro-5-nitro-2-phenyl-1,3-dioxane with the Na deriv. of $\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}(\text{CO}_2\text{Et})_2$ gives $\text{C}_6\text{H}_5\text{CH}(\text{CH}_3)\text{CH}(\text{CO}_2\text{Et})_2$ which is difficult to obtain in pure state. The corresponding nitronic salts with III give IV. Preliminary expts. were also made on the reaction of I with NaI in acetone, and with NaNO_2 in MeCN, and of V with Et ethyl-, butyl-, and phenylmalonates. XXIV. Reactions of 5-nitro-1,3-dioxane. 3. On alkylation of derivatives of 5-nitro-1,3-dioxane. Zygmunt Eckstein and Tadeusz Urbanski. *Ibid.* 1163-74. Alkylation of nitroparaffins (I) and the formation of new C-C bonds is found to be possible by the action of alkyl chlorides upon the Na salts of the I. It is accompanied by formation of unstable O-alkyl derivs. The reactions of $p\text{-O}_2\text{NC}_6\text{H}_4\text{CH}_2\text{Cl}$ with the Na salt of 2-phenyl-5-nitro-1,3-dioxane (II) and 2,2-dimethyl-5-nitro-1,3-dioxane (III) in anhyd. MeOH were studied. II gave 2 products (IIb), m. 117-18°, and (IIc) m. 183-4°, probably stereoisomeric 5-nitro-6-(p-nitrobenzyl)-2-phenyl-1,3-dioxane. Analogous reactions of 5-nitro-6-hydroxy-2-phenyl-1,3-dioxane and 5-nitro-6-hydroxy-2,2-dimethyl-1,3-dioxane in KOH soln gave, resp. IIb and 6-methyl-5-nitro-2-phenyl-1,3-dioxane (III). Nitro-5-(p-nitrobenzyl)-2,2-dimethyl-1,3-dioxane (III). Hydrolysis of IIb, IIc, and III yielded 2-nitro-2-(p-O- $\text{CH}_2\text{C}_6\text{H}_4$)-1,3-dioxane (IV), m. 88-7°. The acetate and

deriv. (II) can form two products, $R''C(O)CH_2C(NO_2)$

CHP (I) III at pH 7.5 to 8.5 (as KOH soln.)
CHP (I) can be HClO₄ and thus

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POLAND /Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour : Ref Zhur - Khim., No 10, 1958, No 32460

Author : Zygmunt Eckstein, Tajousz Urbanski

Inst : Not Given

Title : Aliphatic Nitro-Compounds. XXIV. Reaction of 5-Nitro-1,3-dioxanes. III. Attempts to Alkylize Derivatives of 5-Nitro-1,3-dioxane.

Orig Pub : Roczn. chem., 1956, 30, No 4, 1163-1174

Abstract : Two stereoisomers of 5-nitro-5-(n-nitrobenzyl)-2-phenyl-1,3-dioxane (Ia, b) were obtained at the reaction of 5-nitro-2-phenyl-1,3-dioxane with n-nitrobenzylchloride (II) in CH₃ONa medium: Ia, melting point 117 to 118°, and Ib, melting point 183 to 184°. Ia was obtained also from 5-nitro-5-oxymethyl-2-phenyl-1,3-dioxane. 5-Nitro-5-(n-nitrobenzyl)-2,2-dimethyl-1,3-dioxane (III), melting point

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POLAND / Organic Chemistry. Synthetic Organic Chemistry.

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, Abs Jour : RZhKhim., No 10, 1958, No 32460

197 to 198°, was obtained similarly at the reaction of 5-nitro-2,2-dimethyl-1,3-dioxane or 5-nitro-5-oxymethyl-2,2-dimethyl-1,3-dioxane with II and CH_3ONa . 2-Nitro-2-(n-nitrobenzyl)-1,3-propanediol, melting point 86 to 87°, (IV) was obtained by the hydrolysis of Ia, Ib and III in alcohol-aqueous HCl. 2-Nitro-2-(n-nitrobenzyl)-1,3-diacetoxopropane was obtained in the result of the reaction of IV with $(\text{CH}_3\text{CO})_2\text{O}$ in dry NC_5H_5 , melting point 94 to 94.5°. 2-nitro-2-(n-nitrobenzyl)-1,3-di-(n-nitrobenzoyloxy)-propane was obtained from III at the reaction with the chloranhydride of n-nitrobenzoic acid in dry NC_5H_5 , melting point 187 to 188°. A product with the melting point at 196.5 to 198° and identical to substances obtained at the reaction with III is obtained at the reaction of IV with acetone in CHCl_3 and in the presence of one drop of concentrated H_2SO_4 . The product obtained at the reaction of

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Abs Jour : RZhKhim., No 10, 1958, No 32460

III with C_6H_5CHO , melting point 134 to 135°, did not show any depression of the melting temperature with Ib. 5-Nitro-5-(n-nitrobenzyl)-3-benzyltetrahydrooxazino-1,3 (V), melting point 138.5 to 139°, was obtained at the reaction of III with CH_2O and benzylamine. The same compound was obtained at the reaction of III with N-oxyethylbenzylamine. The medium of products of V hydrolysis was identified as CH_2O and chlorohydrate of 2-nitro-2-(n-nitrobenzyl)-3-(N-benzyl)propanolamine (VI), melting point 152 to 153° (dissociates); the base, melting point 112 to 114°. See report XXIII in RZhKhim, 1958, 7958.

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POLAND / Organic Chemistry. Synthotic Organic Chemistry.

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Abs Jour : RZhKhim., No 10, 1958, No 32461

aqueous-alcohol medium in the presence of KOH confirm this observation. 23 compounds of the type $R^1R^2COCHRC(NO_2)(N=NR^3)CHRO$ were obtained. Identical compounds were obtained when derivatives of 5-nitro-5-oxymethyl-1,3-dioxane were used for the combination reaction. These crystalline compounds are colored from yellow to bright red. In the cases of 5-nitro-5-(4-chlorobenzeneazo)-2-phenyl-1,3-dioxane, 5-nitro-5-(β -naphthylazo)-2-phenyl-1,3-dioxane and 5-nitro-5-(4-nitrobenzeneazo)-2,2,4,6-tetramethyl-1,3-dioxane, two isomers of each compound were obtained, the isomers differ by melting points and crystallographic structure. 5-Nitro-5-(arylozo)-2,2-dimethyl-1,3-dioxanes hydrolyzed in aqueous-alcohol HCl produce acetone and 2-nitro-2-(arylozo)-1,3-propanediol (II). These compounds are subject to conversions

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POLAND / Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour : RZhKhim., No 10, 1958, No 32461

and produce substances with higher melting points when heated in alcohol. The cyclization of II by the action of C_6H_5CHO in the presence of aminoral acid results in cyclic acetals with higher melting points. The derivatives of II are fungicides.

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URBANSKI, TADEUSZ

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.. POLAND/Organic Chemistry - Synthetic Organic Chemistry.

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14487.

Author : Skowronska-Serafinowa Barbara, Urbanski Tadeusz

Inst : Reactions of Aromatic Amines with Cyanoguanidine. VII.

Title : Reactions of Arylamidinecarbamides with Heterocyclic and Secondary Aromatic Amines.

Orig Pub: Roczn. chem., 1956, 30, No 4, 1189-1196.

Abstract: Reaction of $C_6H_5NHCONHC(=NH)NH_2 \cdot HNO_3$ (I) with 2-amino-pyridine (II) gave N-phenyl-N'-(2-pyridyl)-urea (III), yield 50%, MP 190° . N-(p-nitrophenyl)-N'-(2-pyridyl)-urea (IV) (yield 66%, MP 242° , sublimation point 247°) was obtained on reacting p- $O_2NC_6H_4NHCONHC(=NH)NH_2 \cdot HCl$ (V) with fused II, IV on heating with III is converted to N,N'-di-(2-pyridyl)-urea, MP $172-174^\circ$. $C_6H_5NHCON(CH_3)C_6H_5$ (VI) yield 65%, MP $104-105^\circ$, was obtained by reacting I with

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Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14487.'

methyl aniline (VII). On boiling with aniline VI is converted to carbanilide. From V and VII was obtained N-(p-nitro-phenyl)-N'-methyl-N'-phenyl-urea (MP 124-125°, yield 26%) and a small amount of CO ($\text{NHC}_6\text{H}_4\text{NO}_2\text{-p}$)₂. Reaction of aryl-amidinecarbamides with II can constitute a convenient method for the synthesis of aryl-2-pyridyl-urea, and the reaction of V with II is applicable for the synthesis of sym-di-(2-pyridyl)-urea. Results of the work confirm the assumption of a radical-mechanism of these reactions. Communication VI see RZhKhim, 1956, 39555.

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URBANSKI, T.

Biological activity of 1,1-benzoxazine derivatives par-
ticularly against *Trypanosoma brucei*

EXCERPTA MEDICA Sec.2 Vol.10/10 Phy.Biochem. Oct 57

URBAŃSKI T.

4577. URBAŃSKI T., RADZIKOWSKI Cz., LEDÓCHOWSKI Z. and CZARNOCKI W.
Dept. of Chem., Inst. of Technol., Warsaw; Dept. of Pathol. Anat., Med.
Acad. and Dept. of Chem., Inst. of Technol., Gdańsk. * Biological ac-
tivity of benzoxazine-1:3 derivatives, particularly
against experimental sarcoma NATURE (Lond.) 1956, 178/4546
(1351-1352) Tables 2

Mice bearing Crocker sarcoma were injected s.c. with 3 derivatives of 1:3-benzoxa-
zine. Ten injections of 1-benzyl-6-bromo-1:3-benzoxazine ('T 339') (I) or 1-hexyl-
6-methyl-1:3-benzoxazine ('T 375') (II) and 11 of 1-methyl-1:3-naphthoxazine
(('T 356') (III) were given. I induced the least and III the most marked regression in
the tumours. The compounds have a rather high toxicity.

Sampey - Greenville, S. C. (II,5,16)

POLAND / General Problems of Pathology. Tumors. Exper- U
imental Therapy.

Abstr Jour: Ref Zhur-Biol., No 11, 1958, 51691.

Author : Urbanski, T., Radikowski, C., Ledochowski, Z.,
Czarnocki, W.

Inst : Polish Academy of Sciences.

Title : On the Activity of Benzooxazine-1, 3-Derivatives
Against Experimental Sarcoma.

Orig Pub: Bull. Acad. polon. sci., 1957, 2, 5, No 2, 63-65.

Abstract: The opposing action of the following derivatives
of benzooxazine-1, 3 was investigated:

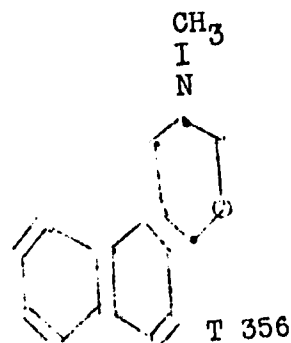
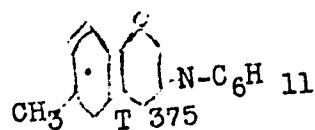
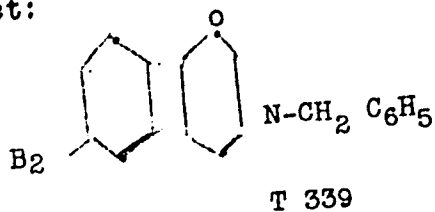
Card 1/3

41

POLAND / General Problems of Pathology. Tumors. Exper- U
imental Therapy.

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51691.

Abstract:



The preparations were administered subcutaneously
one day after 11-12 serial transfers of the sac-
roma of Crocker, for a period of 2 weeks. The

Card 2/3

POLAND / General Problems of Pathology. Tumors. Exper- U
imental Therapy.

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51691.

Abstract: animals were killed after this period. Upon histological examination of the tumors, fragments with very few undamaged tumor cells were observed, lying among formless nucleated masses. The greatest damage of the tumor cells was caused by T 356. The tumoral growth inhibition index with this preparation was 3.17C. (The index was taken from the tables and is expressed by the ratio:
The average weight of the tumor in the experiment.
The average weight of the tumor in the controls).
A relatively high toxicity of these compounds was noted. -- O. V. Zubova.

Card 3/3

42

URBANSKI, T.

POLAND/Optics - Spectroscopy

K-7

Abs Jour : Ref Zhur - Fizika, No 4, 1958, No 9472

Author : Urbanski, T., Szyk-Lewanska, K.
Inst : Technical Military College, Polish Academy of Sciences, Poland
Title : Further Remarks on the Structure of Aniline Black on the Basis
of Infrared Absorption Spectra.

Orig Pub : Bull. Acad. polon. sci., 1957, Cl. 3, 5, No 2, 203-208, XVIII

Abstract : With the aid of infrared absorption spectra, the authors prove the previously raised hypothesis, that emeraldine, aniline black (pernigraniline) in non-green-turning black aniline contain in the molecules a grouping of dianiline quinone. Substances were investigated in the form of suspensions in paraffin oil. The quino-iminic structure of emeraldine and pernigraniline and also the phenazinic structure of the non-green-turning black aniline is not confirmed by the infrared spectra.

Card : 1/1

URBANSKI, T.

POLAND/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11224.

Author : Eckstein, Z., Sacha, A., and Urbanski, T.

Inst : Polish Academy of Sciences

Title : On the Properties and Preparation of 1-Cycloheptenyl-Nitromethane

Orig Pub: Bull Acad Polon Sci, 1957, Cl. 3.5, No 2, 213-218, VIII
(in English with a summary in Russian)

Abstract: Suberone (I) reacts in the presence of piperidine (II) with nitromethane (III) giving 1-cycloheptenyl-nitromethane (IV). The yield of IV at room temperature after 12 days is 7.2%, at 50° after 18 days - 14.2%; when I and III (1 : 3 ratio) are heated together for 24 hrs in a solution of C₆H₆ in the presence of II with the removal of the water which is formed, IV is obtained in yields of 64%, bp 84-85°/1.4-1.6 mm, n_D²⁰ 1.4896, d₄²⁰ 1.0600. The structure

Card : 1/2

5

POLAND/Organic Chemistry! Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 4, 1958, 11224.

of IV is proved by the IR spectrum. Curves giving the
IR- and UV-spectra of IV are given.

Card : 2/2

Enthalpy and entropy of formation of 1-cyclohexenyl- and
cyclohexadienylmethane. I. Z. Bokstein, T. Irbad,
and H. Womyska (Polish Acad. Sci. Warsaw)

POLAND/Physical Chemistry. Molecule. Chemical Bond.

D

Abs Jour: Ref Zhuk-Khin., No 25, 1958, 49347.

Author : Urbanek T.

Inst : Polish Academy of Sciences.

Title : ON Infrared Absorption Spectra of Aminonitro-Compounds
Derived from Nitroparaffins.

Orig Pub: Bull. Acad. polon. sci., 1957, Cl. 3, 5, No 5,
533-539.

Abstract: Investigation of infrared adsorption spectra of some
amino-nitro-compounds of nitroparaffins (I-V). It
was found that derivatives of nitroparaffins con-
taining a secondary amino group yield bands 3077-
3030 and 1621-1613 cm^{-1} corresponding to this
group, bonded by hydrogen bond. Tertiary amines

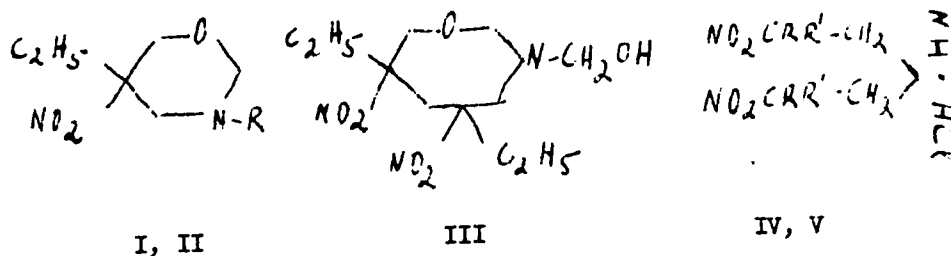
Card : 1/3

POLAND/Physical Chemistry. Molecule. Chemical Bond.

B

Abs Jour: Ref Zhur-Khim., No 15, 1958, 49347.

yield bands of the same frequency



I R=H.HCl, II R=CH₂C(C₂H₅)(NO₂)CH₂OH; IV R=C₂H₅
 R'=CH₂OH; V R7R'=CH₃

Card : 2/3

POLAND/Physical Chemistry. Molecule. Chemical Bond.

D

Abs Jour: Ref Zhur-Khim., No 15, 1958, 49347.

3077-3030 and 1764-1681 cm^{-1} . The nitrogroup yields in most compounds bands in which the wave numbers 1563-1543 and 1348-1328 cm^{-1} are lowered due to the presence of hydrogen bond between nitro and amino group. Compounds containing heterocyclic ring of 1.3-oxazine or 1-oxa-3-aza-cyclohexane yield 3 bands: 1111, 1953-1934 and 4000-3846 cm^{-1} which characterize the C - O - C linkage in cyclic ethers. Author's abstract.

Card : 3/3

"APPROVED FOR RELEASE: 04/03/2001

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APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001858020014-2"

Dist.: 4520 (11/7)

Preparation of caproteram from cyclohexanone and ac-

nitrobenzene T. Urzanski and A. Piotrowski Polish Acad.

Sci. Bull. Acad. Polon. Sci. Chem. 11: 5.

URBANSKI, T.

POLAND/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14418.

Author : Urbanski T., Semenczuk A.

Inst : Polish Academy of Sciences.

Title : On Preparation of N,2,4,6-Tetranitromethylaniline by the Action of Nitric Acid on Dimethylaniline.

Orig Pub: Bull. Acad. polon. sci., 1957, Cl. 3, 5, No 6, 649-651.

Abstract: N,2,4,6-tetranitromethylaniline (I) was prepared by action of HNO_3 on dimethyl aniline (II) at a ratio of HNO_3 to II of not less than 35-40 : 1. 6 g of II are dissolved in 280 g HNO_3 (d 1.40) at 2-7° with vigorous stirring, after 15 minutes (2°) heated to 40-50°, heating is then discontinued for 30 minutes, until the violent evolution of nitrogen oxides has subsided, the solution is then heated to 80° and then to 90° for 1 hour after which 50 ml of water (10°) are added, and after several hours I is filter-

Card : 1/2

POLEAND/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14418.

ed off; yield 78%. On nitration of 6 g II with a mixture of 84 g HNO_3 (d 1.40) and 150 g HNO_3 (d 1.51) (4-5°), the yield of I is 83.1%, MP 129.5°.

Card : 2/2

POLAND/Optics - Spectroscopy

K-7

Abs Jour : Ref Zhur - Fizika, No 3, 1958, No 7059

is missing. In the spectra of V and VI a bend is seen near 270 -- 275 millimicrons. The weakening of the absorption band of the nitro group is due in all probability to the steric influence of the cyclohexane ring on it, and in addition to the existence of a hydrogen bond between the nitro and hydroxyl groups. It is possible that the hydrogen bond is weakened by introducing the halogen into the molecule.

Card : 2/2

urbanski, T.

B-4

POLAND/Physical Chemistry - Molecule, Chemical Bond.

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 3557.

Author : Z. Eckstein, T. Urbanski, W. Sobotka.

Inst : Academy of Sciences of Poland.

Title : Ultraviolet and Infrared Absorption Spectra of 2,2-Dinitropropane-1,3-Diol.

Orig Pub: Bull. Acad. polon. sci., 1957, Cl. 3,5, No 6, 679-684.

Abstract: 2,2-Dinitro-1,3-propanediol (I) in ethyl alcohol solution produces two maxima at about 276 and 363 $m\mu$. The first maximum is characteristic of the nitrogroup. We presume, the second maximum is caused by two chromophores (NO groups) combined with two hydroxyl groups. Indeed, should the hydroxyl groups be bound producing a derivative of 1,3-dioxane, then only one maximum at about 279 $m\mu$ appears in the spectrum. The infrared spectrum of I suspended in paraffin oil does not produce the band specific of the hydroxyl group, and only a weak band at

Card : 1/2

-32-

POLAND/Physical Chemistry - Molecule, Chemical Bond.

B-4

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 3557.

3174 cm^{-1} appears in the CCl_4 solution, which is specific of hydroxyl groups linked with hydrogen bonds. We consider it to be possible that forms could exist, in which both the hydroxyl groups should be linked with the nitrogroup with the hydrogen bond. Three bands were found for the nitrogroup: in crystalline state 1587, 1568 and 1544 cm^{-1} , and in CCl_4 solution - 1568, 1562 and 1527 cm^{-1} . It seems to be probable that the first band belongs to the free nitrogroup, the second - to the "semibound" nitrogroup, and the third - to the "completely bound" nitrogroup.

Card : 2/2

-33-

POLAND/Chemistry of High Molecular Substances.

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 72865.

I

acids. Nitrocellulose of lower stability containing
9.5 to 10% of N was produced in liquid media.

Card : 2/2

END

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URBANSKI, T.

URBANSKI, T.

Aliphatic nitro compounds. XXVI. Hydrogen bonds in nitroalcohols and infrared absorption spectra.

P. 37, (Roczniki Chemii) Vol. 7, No. 1, 1957, Warszawa, Poland.

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC. VOL. 7, NO. 1, JAN. 1958

URBANSKI, T. : ECKSTEIN, Z. : WOJNOWSKA, H.

Aliphatic nitro compounds. XXVII. Products of the reaction of 1-nitromethylcyclohexanol and its halogen derivatives with aliphatic aldehydes.

P. 93, (Roczniki Chemii) Vol. 7, No. 1, 1957, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEA1) LC. VOL. 7, NO. 1, JAN. 1958

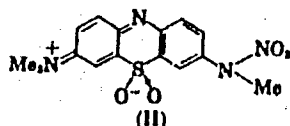
- I. URBANSKI

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Distr: 4E20(j)

(V) Structure of methylene blue nitro derivatives. T. Urbanski, K. Szye-Lewuńska, and P. Kalinowski (Politech. Wary

saw). *Bull. Wojskowej Akad. Tech.* 7, No. 38, 60-61 (1957).—The olive-brown compd. (I), designated by Gnehm as the *trinitro deriv.* of methylene blue and assigned the compn. $C_{16}H_{18}N_4O_3S$, was prepd. by his method (*C.A.* 2, 1285) by nitration with an HNO_3 (d. 1.33)-AcOH mixt., and purified by crystn. from boiling AcOH acidified with HNO_3 , followed by pptn. with HNO_3 (d. 1.18). The solubilities of I at 20° and at the b.p. in g./100 ml., in the following solvents, were: Me_2CO , 0.1, 0.35; $MeOH$, 0.085, 0.20; $EtOH$, 0.000, 0.21; C_6H_6 , 0.001, 0.02; dioxane, 0.090, —; AcOH, 0.16, 0.37. I gave a yellow color reaction in solns. with concd. H_2SO_4 and red with aq. H_2SO_4 and HNO_3 . It is an explosive, sensitive to temp. and to flame, but not to impact. I did not react with ultrone, was hydrolyzed with 2% NaOH to a phenol, and contained nitramine groups; this contradicts Gnehm's structure and confirms the proposed one II, which is discussed.



J. Stecki

POLAND/Chemical Technology. Chemical Products and Their Application - Pesticides.

H-18

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15568.

Author : Hetnarski B., Eckstein Z., Urbanski T.

Inst :

Title : Chemical Agents for the Control of Fungi. I. Some Derivatives of S-Alkyl-, -Alkoxyalkyl- and -Arylmercury-Substituted 2-Mercapto-Benzothiazole.

Orig Pub: Przem. chem., 1957, 13, No 5, 291-293.

Abstract: By the action of alkyl-, alkoxyalkyl- and aryl-mercury halides on the Na-salt of 2-mercapto-benzothiazole (I) derivatives of I were prepared which contain the SHgR-group in 2-position, and exhibit high fungicidal activity. Listing the R, yield in %, MP in °C, concentrations inhibiting growth of Fusarium culmorum, Alternaria tenuis and

Card : 1/2

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POLAND/Physical Chemistry. Molecule. Chemical Bond.

5

Abs Jour: Ref Zhur-Khim., No 1, 1959, 183.

Author : Urbanski T.

Inst :

Title : Aliphatic Nitro Compounds. XXVI. Hydrogen Bonds in Nitro Alcohols as Investigated by Absorption Spectra in the Infra-Red Region.

Orig Pub: Roczn. chem., 1957, 31, No 1, 37-57.

Abstract: According to the author's hypothesis (R. Zh. Khim., 1958, 1222), based mainly on studies of absorption spectra in the UV region, intramolecular hydrogen bonds (HB) exist between a nitro group (NG) and alcohol groups (AG) which originate with the formation of 6-membered inner complex rings. This hypothesis is verified by the investigation of

Card : 1/3

POLAND/Physical Chemistry. Molecule. Chemical Bond.

D

Abs Jour: Ref Zhur-Khim., No 1, 1959, 183.

3. The bands 1567 and 1340-1361 cm.⁻¹ pertaining to NG are displaced to 1543 - 1555 and 1310-1319 cm.⁻¹, and become weak and broad if the two AG present in the molecule are capable of forming six-membered rings with N.G.
4. The C-H bond of carbon with an active hydrogen in II produces an absorption band at 3704 or 4167 cm.⁻¹, depending upon the structure of the compound.
5. The very weak absorption lines in the neighborhood of 7000 cm.⁻¹ probably belong to AG with HD. For communication XXV see R. Zh. Khim., 1958, 32461. H. Daranska.

Card : 3/3

POLAND / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8216.

Author : Urbanski, Tadousz, Eckstein, Zygmunt, Wojnowska, Halina.

Inst : Not given.

Title : Aliphatic Nitrocompounds. XXVII. Products of the Reaction of 1-Nitromethyl-Cyclohexanol and of Its Halogen-Derivatives with Aliphatic Aldehydes.

Orig Pub: Roczn. chem., 1957, 31, No 1, 93-100.

Abstract: It is shown that 1-nitromethyl-cyclohexanol (I), 1-chloronitro-methyl-cyclohexanol (II) and 1-bromonitromethyl-cyclohexanol (III), form with CH_2O and CH_3CHO , in the presence of NaOH, cyclohexanone (IV) and nitro-alcohol, which is formed

Card 1/3

FOLAND / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8216.

Abstract: as a result of condensation of CH_3NO_2 , CH_2ClNO_2 or CH_2BrNO_2 with the aldehyde utilized. To 8 g I and 15 g 30% CH_2O is added dropwise a solution of NaOH until alkaline reaction is attained (temperature rises to 50°) and then allowed to stand for 12 hours. Aqueous solution of NaCl is added, and extracted with ether to get IV and tri-(hydroxymethyl)-nitromethane, yield 79.5%. II and 30% solution of CH_2O (molar ratio 1:2) give IV and 2-chlor-2-nitro-propananediol-1,3, yield 62%, MP $119-120^\circ$ (from benzene). Under the same conditions III gives IV and 2-brom-2-nitropropanediol-1,3, yield 68%, MP $128-129^\circ$ (from benzene). To 9.7 g II and 5 ml CH_3CHO added dropwise 20% NaOH until reaction alkaline, heated 1 hour at

Card 2/3

FOLAND / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8216.

Abstract: 40°, several days later treated with saturated solution of NaCl and extracted with ether to get IV and 3-chlor-3-nitropentanediol-2,4, MP 117-118° (from chloroform-CCl₄). From III and CH₃CHO is formed II and 1-brom-1-nitropropanol, BP 78°/1.2 mm, n_D²⁰ 1.4936, d₄²⁰ 1.7162. II is obtained by treating Na-salt of I with Cl₂-gas in CHCl₃ at 5°, yield 65.5%, BP 103-105°/1 mm. III is synthesized by bromination of Na-salt of I in CHCl₃ (temperature from - 5° to + 5°), yield 50%, BP 115-118°/1.2 mm. Communication XXVI see RZhKhim, 1959, 183. -- M. Kowalski.

Card 3/3

POLAND/Organic Chemistry. Synthetic Organic Chemistry G

Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11879

Author : Jones J., Kolinski R., Piotrowska H., Urbanski T.

Inst : None.

Title : The Aliphatic Nitro Compounds. XXVIII. Derivatives of 1,5-diazobicyclo- \angle 3,3,3 \angle -undecane from 1-nitropropane, Formaldehyde and Ammonia.

Orig Pub: Roczn. chem., 1957, 31, No. 1, 101-108

Abstract: 2-nitro-2-ethylpropanediol-1,3 (I), in the presence of an excess aqueous solution of NH_3 at a temperature of 25° , produces 3,7,10-trinitro-3,7,10-triethyl-1,5-diazobicyclo- \angle 3,3,3 \angle -undecane (II) and 5-nitro-5-ethylhexahydro-pyrimidine. The hydrolysis of II by alcoholic HCl leads to 3,7-dinitro-3,7-diethyldiazocyclo-

Card 1/3

9

POLAND/Organic Chemistry. Synthetic Organic Chemistry G

Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11879

octane, $C_2H_5C(NO_2)CH_2NHCH_2C(NO_2)(C_2H_5)CH_2NHCH_2$
(III), which on heating with I reproduces II.
The excess of NH_3 at 100° is transferred from
I into III, 0.2 mole of I and 1 mole of 25%
 NH_3 are left for 3 days at about 20° . The tar
is separated, dissolved in alcohol and left for
several weeks - II is produced (yield, 10-30%;
melting point, $107-108^\circ$); the mononitroso deri-
vative's melting point is $101-103^\circ$ (from alco-
hol). The filtrate, which is treated with
alcoholic HCl , is separated (0° , several days)
from some hydrochlorides of III (melting point,
 $167-168^\circ$); the basic material (melting point,
 $63-64^\circ$); the mono-N-n-toluolsulphonyl derivative
melting point, $138-140^\circ$ (from alcohol). The
hydrochloride of II (melting point, $143-145^\circ$ -
decomp.) is hydrolyzed by water to I. The con-
densation of I with 25% NH_3 at about 100° leads

Card 2/3

POLAND/Organic Chemistry. Synthetic Organic Chemistry G

Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11879

to III (the hydrochloride's yield, 7.5%) and to II (yield, 1%). The structure of II is substantiated by the separation, during hydrolysis with concentrated HCl (80°, 1 hour), of CH₂O in the form of 2,4-dinitrophenylhydrazone, 1-nitropropane in the form of phenylhydrazone and III in the form of hydrochloride (yield, 67%). The hydrochloride of $\text{HOCH}_2\text{C}(\text{NO}_2)(\text{C}_2\text{H}_5)\text{CH}_2\text{NH}$ in 25% NH₃ produces II in the cold (yield, 17%) and, at a higher temperature, the hydrochloride of III is obtained mainly (yield, 8%). Report XXVII; see RzhKhim, 1959, 8216. -- M. Kowalski

Card 3/3

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URBANSKI, T.

POLAND / Organic Chemistry. Synthetic Organic
Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61005.

Author : Zygmunt Eckstein, Wiclaw Sobotka, Tadeusz Urban-
ski.

Inst : -

Title : Explanation to Work "Reactions of Aliphatic Com-
pounds. XX. Reactions of Nitrolefins. II. Deri-
vatives of 5-Nitro-5-(1-Cyclohexenyl)-Tetrahydro-
oxazine-1,3".

Orig Pub: Roczn. chem., 1957, 31, No 1, 347-348.

Abstract: Corrections to the mechanism scheme of ring open-
ing reactions of 5-nitrotetrahydrooxazine-1,3 pre-
sented in the author's work (RZhKhim, 1957, 37540)
are made.

Card 1/1

POLAND / Organic Chemistry. Synthetic Organic Chemistry G-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57417.

Author : Urbanski T., Palecki J., Nowak J.

Inst : NOT given.

Title : Investigation of Hydroxamic Acids. VI. Nitration of Salicylhydroxamic Acid.

Orig Pub: Roczn. chem., 1957, 31, No 2, 517-523.

Abstract: Experiments in obtaining nitrosalicylhydroxamic acid was conducted. Nitration of the salicylhydroxamic acid (I) with nitric acid ($d = 1.50$) at -5° to 60° temperature leads to the formation of 5-nitrosalicylic acid (II). Action of the HNO_3 in ether at a temperature below -10° results in the formation of salicylic acid (III). In $(\text{CH}_3\text{CO})_2\text{O}$ a mixture of acids is obtained: II and 3, 5-dinitrosalicylic (IV). Nitration of I with the mixture

Card 1/4

48

POLAND / Organic Chemistry: Synthetic Organic Chemistry G-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57417.

Abstract: of HNO_3 ($d = 1.40$) and H_2SO_4 ($d = 1.84$) at 100° gives IV. Nitration of I with HNO_3 at a temperature $< 67^\circ$ yields picric acid (V). Mechanism of the reaction is discussed. 10 gr I in 70cc H_2SO_4 ($d = 1.84$) at approximately 20° and 50cc HNO_3 ($d = 1.40$) are heated for half an hour on a steam bath. After 12 hours approx. 200cc of water are added drop by drop, followed by the filtration of product and by the addition of saturated $\text{Ba}(\text{OH})_2$ solution. The barium salt is then decomposed by dilute HCl thus yielding 20% of IV that has a melting point of $170-172^\circ$. 10 gr I is added in small portions to 40cc of water are added drop by drop and fil-

Card 2/4

POLAND / Organic Chemistry. Synthetic Organic Chemistry G-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57417.

Abstract: tered. Depending on the reaction temperature (5-85°), II, V or their mixtures are obtained. To a suspension of 10 gr I in 100cc of ether a mixture of 40cc KNO₃ (d = 1.50) in 100cc of ether is added drop by drop during 4 hours while temperature is maintained at -17°. This is followed by allowing the mixture to stand for 2 hours at -15°. 100cc of water is then added drop by drop at -10°. III is obtained by removing ether from the above mixture by water washing and then heating it under vacuum. 40cc HNO₃ (d. = 1.50) are cooled down to 3° followed by the addition of 10 gr III in small portions at 3-7°. After 12 hours the mixture is diluted with 40cc of water and IV is separated by filtration. The filtrate is neutralized with NaHCO₃ and evaporated to dryness. In the subsequent

Card 3/4

POLAND / Organic Chemistry. Synthetic Organic Chemistry G-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57417.

Abstract: alcohol extraction of the residue, 0.25 gr of V is obtained. To 10cc HNO_3 ($d = 1.50$), 10cc $(\text{CH}_3\text{CO})_2\text{O}$ are added drop by drop at 5° . 5 gr of I is then added at $20-30^\circ$ while the heat of reaction is removed by forced cooling. 10cc of water is added after 10 minutes followed by the filtration of 2.1 gr of a product from which 0.7gr of II and 0.8gr of III are obtained by means of fractional crystallization. When the above reaction is carried out at a temperature ranging from -10° and up to $+2^\circ$, a substance having $182-184^\circ$ melting point is obtained. For the preceding parts refer to Ref Zhur-Khimiya, 1956, 46999; 1957, 51216.

Card 4/4

POLAND/Organic Chemistry. Synthetic Organic Chemistry G

Abs Jour: Ref Zhur - Khim., No! 4, 1959, 11880

Author : Urbanski T., Piotrowska H.

Inst : Not given.

Title : Aliphatic Nitro Compounds. XXIX. Obtaining Two Interchangeable Derivatives of 5-nitrotetrahydrooxazine-1,3.

Orig Pub: Roczn. chem., 1957, 31, No. 2, 553-558

Abstract: At a concentration of 2-nitro-2-oxymethylpentylamine (I) with acetic, propionic, n-butyric, non-interchangeable benzoic, o-chloro-, o- and p-nitrobenzoic aldehydes, there are obtained two interchangeable 5-nitrotetrahydrooxazine-1,3, $RCHOCH_2C(NO_2)(n-C_3H_7)CH_2NH$ (II). The reactions should be conducted in absolute alcohol or absolute C_6H_6 . Aromatic

Card 1/3

POLAND/Organic Chemistry. Synthetic Organic Chemistry G

Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11880

aldehydes, in distinction from aliphatic, react easily with a yield of 60-90%. All II form N-nitroso derivatives. The hydrochlorides of II, on heating with 1.5% HCl in alcohol, hydrolyze with the formation of I. The following II were obtained (R, yield in percentages, melting point in centigrade degrees of the basic material, hydrochloride, picrate and N-nitroso derivatives: CH₃, 5, --, 178-180 (decomp.), 145-146, --; C₂H₅ (III), 5, --, 182-184 (decomp.), 137-138, --; n-C₃H₇, 5, --, 174-176, 139-140, --; C₆H₅, 60, --, 180-182 (decomp.), --, --; n-C₁₀H₇, 75, 56-57, 170-172, --, 71-72; o-O₂NC₆H₄, 90, 101-102, 174-176 (decomp.) --, 109-110; n-HOC₆H₄, 65, 111-112, 184-186 (decomp.), --, --. Method A. 3 g of CH₃CH₂CHO and a small quantity of 2% alcoholic KOH are added to 8 g of I in 30 ml of

Card 2/3

11

POLAND/Organic Chemistry. Synthetic Organic Chemistry G

Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11880

absolute alcohol, and the mixture is heated for 2 hours. The residue after distillation of the alcohol is dissolved in ether and saturated with HCl; the hydrochloride of III is obtained. Method B (for aromatic aldehydes). Equimolar quantities of I and aldehyde are dissolved in C_6H_6 and a small quantity of $KHCO_3$ is added. Water, formed as a result of the reaction, is distilled with C_6H_6 . The precipitate is filtered off, the solution is saturated with HCl, and hydrochlorides are formed. N-nitroso derivatives are obtained by the addition of an aqueous solution of $NaNO_2$ to weakly acidified solutions of the hydrochlorides. All compounds give Liebermann's reaction. -- J. Wolf

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POLAND/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11737

Author : Urbanski T., Dombrowska H., Lesiowska B.,
Piotrowska H.

Inst : Not given.

Title : Aliphatic Nitrocompounds. XXX. Products of
the Reaction of 1-nitro-n-pentane and 1-nitro-
n-hexane with Formaldehyde and Ammonia or
Primary Amides.

Orig Pub: Roczn. chem., 1937, 31, No.2, 687-694

Abstract: During the heating (after the end of the exo-
thermic reaction) of a mixture of 0.2 mol of
30% HCHO with 0.1 mol of nitro-n-pentane (I)
in 20 ml of dioxane and 1 drop of $(C_2H_5)_3N$ at
70-75° for 3 hours, 2-nitro-2-n-butylpropane-
diol-1,3 (II) is produced (yield, 74%; melting

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Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11737

point, 48-49°). Similarly, from 1-nitro-n-hexane, there is obtained 2-nitro-2-n-amylopropanediol-1,3 (yield, 60%; melting point, 53-54°). During the heating (about 100° for 4 hours) of equimolar quantities of II by 30% NCHO and 25% NH₄OH, there are obtained 5-nitro-n-butyltetrahydro-1,3-oxazine (III) (liquid), and the hydrochloride of III (yield, 15%; melting point, 172-174°). III is produced also (yield of the hydrochloride is 10%) by boiling for 3 hours 0.1 mol of I, 0.3 mol of 30% HCHO and 0.1 mol of 25% NH₄OH; the picrate's melting point is 150-151°. The hydrochloride of III, during boiling with concentrated HCl in 80% alcohol, hydrolyzes, separating HCHO and forming 2-nitro-2-oxymethylhexylamine (IV). The action of 30% HCHO on IV (the heating is over

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Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11737

a hot water bath), again forms III; the hydrochloride (melting point, 105-106°). Analogously to III, there are formed from I, HCHO and methylamine (40% aqueous solution) or ethylamine (33% aqueous solution); 3-methyl-5-nitro-5-n-butyltetrahydrooxazine-1,3 (liquid); the hydrochloride (yield, 70%; melting point, 170-172°); 3-ethyl-5-nitro-5-n-butyltetrahydrooxazine-1,3 (liquid); the hydrochloride (yield, 65%, melting point, 174-176°). Similarly, as described above, from 1-nitro-n-hexane there are obtained: 2-nitro-2-n-amylopropanediol-1,3 (yield, 60%; melting point, 53-54°), the hydrochloride of 5-nitro-5-n-amyloxytetrahydro-1,3-oxazine (yield, 4%, melting point, 174-175°); the hydrochloride of 3-nitro-5-n-amyloxytetrahydro-1,3-oxazine (yield, 60%; melting point, 191°), and the hydrochloride of 3-ethyl-5-nitro-5-n-

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Abs Jour: Ref Zhur - Khim., no. 4, 1959, 11737

amyltetrahydro-1,3-oxazine (yield, 49%; melting point, 178-179°). Report XXIX; see RZhKhim, 1959, 11880. -- B. Szczycinski

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URBANSKI, T.

G-2

Country : Poland
Category : Organic Chemistry. Synthetic Organic Chemistry
Abs. Jour. : Ref. Zhur.-Khimiya No. 6, 1959 19353

Author : Urbanski, T.; Chylinska, B.

Institut. :
Title : Aliphatic Nitrocompounds. XXXI. Preparation of
of Alcohols from Primary Nitroparaffins and
Formaldehyde.

Orig. Pub. : Roczn. chem., 1957, 31, No 2, 695-698

Abstract : An improvement of the method of producing nitro-
alcohols by the action of formaldehyde on primary nitro-
paraffins (Wyler J.A., U.S. Patent 2 164 440, 1938; Fieser
L.F., Gates M., J. Amer. Chem. Soc., 1946, 68, 2249). The
improved method has made it possible to obtain purer products
(without additional crystallization) with higher yields than
hitherto. To a solution of 6.01 g paraformaldehyde in 10 ml
n-butanol, added 0.5 ml $(C_2H_5)_3N$ followed by 7.5 g nitro-
ethanol. After completion of exothermic reaction and cooling
to about 20° there is obtained 2-methyl-2-nitropropandiol-
-1,3, yield 92%, MP 135-139°. Analogously were prepared

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Country : Poland
Category :

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Abs. Jour. :

19353

Author :

Institut. :

Title :

Orig Pub. :

Abstract : $RR'C(NO_2)CH_2OH$ (listing R, R', yield in %, MP in °C): C_2H_5 , CH_2OH , 84, 55-57; $n-C_3H_7$, CH_2OH , 86, 79-81; $n-C_4H_9$, CH_2OH , 85, 46-48; $n-C_5H_{11}$, CH_2CH , 60, 53-55; CH_3 , 81, 77-81. Communication XXX see RZhKhim, 1959, 11737.
-- B. Szczycinski.

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POLAND / Organic Chemistry--Synthetic
Organic Chemistry

G-2

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27502

Author : Guerne, D. and Urbanski, T.

Inst : Not given

Title : Aliphatic Nitro Compounds. XXXII. Synthesis and
Cleavage of 3-benzyl-3Substituted Tetrahydro-
1,3-Oxazines

Orig Pub: Roczniki Chem, 31, No 34, 855-867 (1957) (in
Polish with English and Russian summaries)

Abstract: The reaction of $C_6H_5CH_2NH_2$ (I) and CH_2O (II)
with $C_2H_5NO_2$ (III), $C_3H_7NO_2$ (IV), or $C_4H_9NO_2$
(V) has been used to prepare compounds of the
type $OCH_2N(CH_2C_6H_5CH_2C(R)(NO_2)CH_2$ [sic] (VI),
where $R = CH_3$ (VIa), C_2H_5 (VIb), or C_3H_7 (VIc);
the previously synthesized VI ($R = CH_2OH$) (VIId)

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Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27502

Abstract: and VI (R = H) (VIe) (See Communication XXXI, RZhKhim, 1959, 19353) were also prepared in the above-described way. VI on hydrolysis lose 1 mole of II and are converted to aminonitroalcohols, $C_6H_5CH_2NHCH_2C(R)(NO_2)CH_2OH$ (VII). When VII are heated with II in the presence of $NaHCO_3$ VI are regenerated. The action of CH_3ONa (VIII) on VII results in the elimination of 1 mole II and gives Na derivatives of aminonitro compounds of the type $C_6H_5CH_2NHCH_2Na-(R)NO_2$ (IX) which are converted to $C_6H_5CH_2NHCH_2CH(R)NO_2$ (X) by acids and by CO_2 . When X are heated with II in 50% alcohol in the presence of $NaHCO_3$ (pH 7.5), VI are regenerated. VII (R = CH_2OH), prepared

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Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27502

Abstract: from VI_d, when reacted with VIII loses 2 mols II and is converted to X (R = H) (X_a). X_z adds 3 mols II and changes into VI_d. VI_d on reaction with VIII gives VI_e, which on treatment with II and HCl cleaves to give X (R = CH₂OH)(X_b). X_b is converted to X_a by the action of VIII, losing 1 mole II. 0.1 mol of (CH₂OH)₂C(R)NO₂ (XI) at ~200 is treated with 0.15 mol 30% II, 0.5 gm NaHCO₃, and 0.1 mol I, the mixture is heated for 2 hrs at 60°, and VI is obtained (R, the yield in %, mp in °C, and mp of the hydrochloride (HC) in °C are given in that order): CH₃, 65, 66-68, 196-198; C₂H₅, 58, 68-70, 198-200; C₃H₇, 55, 46-48, 175-178. One gm of the HC or of free base VI is refluxed for 15 hrs in 50 ml conc H₂SO₄ or in

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Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27502

Abstract: 15% HCl) (alternatively, the refluxing may be stopped after 7-8 hrs) and evaporated under vacuum; the HC of the corresponding VII is isolated from the residue. One gm of VI in 100 ml 80% alcohol is treated with 4 ml conc HCl, the solution is refluxed 2 hrs, and the solvent is distilled off under reduced pressure; the following HC of VII were obtained by this procedure (R, the mp in °C, and the mp in °C of the dibenzoyl (for VII prepared from VIa-c) or the diacetyl or triacetyl derivative (for VII prepared from VI d and VI e) are listed in that order):
CH₃, 102-104, 112-114; C₂H₅, 150-152, 105-107;
C₃H₇, 135-137, 90-92; H, 150 (decomp), 115-118;

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Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27502

Abstract: (decomp), acetyl derivative mp 193-195°. 0.01 mol XI in 3 ml water is treated with a stoichiometric amount of I and the mixture is heated to 50°; a solution of the organic layer in acetone is treated with an ether solution of HCl (gas); the HC of VII is obtained, yield 30-50%. 0.02 mol $C_6H_5CH_2NHCH_2OH$ in 20 ml alcohol and 10 ml water is treated with 0.02 mol of III, IV, or V, the solution is heated to 60°, after 24 hrs the organic layer is separated, the aqueous layer is evaporated under vacuum, the residue is extracted with ether, the organic layer is added to the extract, and the HC of X is isolated from the solution, yield 20-50%. 0.01 mol $CH_3CH(NO_2)-CH_2OH$ or $C_2H_5CH(NO_2)CH_2OH$ in 15 ml of a 1:2

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Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27502

Abstract: CH_2OH , 177 (decomp), 58-100. 5 mmols of the HC of VII in 3 ml 30% alcohol, 8 mmols 27% II, and 0.01 mol NaHCO_3 are heated for some time at $\sim 100^\circ$; VI is obtained. One gm of the HC of VII in 200 ml ether is treated with a calculated amount of 2% VIII and the solution is filtered; the filtrate yields LX having no definite mp. One gm IX in aqueous solution on treatment with CO_2 or 2- $\text{HOC}_6\text{H}_4\text{COOH}$ gives X (ether extraction); the following X have been prepared in this way (R, the mp in $^\circ\text{C}$ of the HC of X, and the mp in $^\circ\text{C}$ of the tosyl derivative of X are listed in that order): CH_3 , 148-150, 82-84; C_2H_5 , 150-151; 88-89; C_3H_7 , 152-154, 110-112; HC of Xa mp 147°

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Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27502

Abstract: water-alcohol mixture are gradually treated
with 0.01 mol I, the solution is heated to 50°,
allowed to stand for a few hours, and processed
as above; the yield of HC of X is about 30%.--
V. Skorodumov

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POLAND / Organic Chemistry--Synthetic Organic Chemistry G-2

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27503

Author : Guerne, D. and Urbanski, T.

Inst : Not given

Title : Aliphatic Nitro Compounds. XXXIII. Synthesis and Cleavage of 3-Cyclohexyl-Derivatives of Tetrahydro-1,3-Oxazine

Orig Pub: Roczniki Chem, 31, No 3, 869-878 (1957) (in Polish with English and Russian summaries)

Abstract: Continuing work reported earlier, the authors have synthesized a number of 5-nitro-5-R-3-cyclohexyltetrahydro-1,3-oxazines (Ia-c, where $R_a = CH_3$, $R_b = C_2H_5$, and $R_c = C_3H_7$) and have investigated their hydrolysis. The synthesis of I is achieved by reacting $C_6H_{11}NH_2$ (II) with

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POLAND / Organic Chemistry--Synthetic Organic Chemistry G-2

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27503

Abstract: $(\text{HOCH}_2)_2\text{C}(\text{R})\text{NO}_2$ (IIa-c) in 30% CH_2O (IV). The hydrolysis of I with aqueous-alcoholic HCl leads to the elimination of CH_2O and the formation of $\text{C}_6\text{H}_{11}\text{NHCH}_2\text{CH}(\text{R})\text{NO}_2$ (Va-c). The action of IV on V regenerates the I. When V is reacted with $\text{CH}_3\text{-ONa}$ (VI), IV is eliminated and the Na salt of the aminonitro compound is formed; treatment of these products with HCl gives $\text{C}_6\text{H}_{11}\text{NHCH}_2\text{CH}(\text{R})\text{-NO}_2$ (VII a-c). The action of IV on VI reconverts the latter to I. The nitrosoamines, $\text{C}_6\text{H}_{11}\text{N}(\text{NO})\text{-CH}_2\text{CH}(\text{R})\text{NO}_2$ (VIIIa-c) are converted back to the VII with HCl. V is synthesized by the action of II on III or from $\text{HOCH}_2\text{NHC}_6\text{H}_{11}$ (IX) with

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